

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Koji OKAMOTO

Application No.: New

Filed: January 17, 2002

Attorney Dkt. No.: 108384-00039

For: SUPPLY SYSTEM OF COMPOUND FOR CHEMICAL VAPOR DEPOSITION  
AND THIN-FILM MANUFACTURING SYSTEM HAVING THE SAME COMPOUND  
SUPPLY SYSTEM

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

January 17, 2002

Sir:

Prior to initial examination of the application, please amend the above-identified  
application as follows:

**IN THE CLAIMS:**

Please amend claims 3, 4, 5, 6, 9, 10, 11, 12 & 13 as follows:

3. (Amended) The supply system of a compound for chemical vapor  
deposition according to claim 1, wherein the regeneration information includes purity  
and composition of the regenerated compound.

4. (Amended) The supply system of a compound for chemical vapor  
deposition according to claim 1, wherein the shipment information includes purity and  
composition of a compound at the time of shipment.

5. (Amended) The supply system of a compound for chemical vapor deposition according to claim 1, wherein the stock-material information database also stores the analysis information and the regeneration information.

6. (Amended) The supply system of a compound for chemical vapor deposition according to claim 1, wherein the order-processing device, the inventory data base, the analyzing means, the regenerating means, the charging-processing device, and the stock-material information database are connected to each other by a network.

9. (Amended) The supply system of a compound for chemical vapor deposition according to claim 7, wherein the order-processing device, the regenerating means, the charging-processing device, and the regeneration cost database are connected to each other by a network.

10. (Amended) The supply system of a compound for chemical vapor deposition according to claim 7, further comprising analyzing means having analysis information output means capable of analyzing the spent compound that is returned from the customer, and outputting, as analysis information, at least a weight of an unreacted compound in the spent compound.

11. (Amended) The supply system of a compound for chemical vapor deposition according to claim 7, wherein the analysis information includes at least one of the weight, a density, and composition of the unreacted compound in the spent compound.

12. (Amended) The supply system of a compound for chemical vapor deposition according to claim 10, wherein the order-processing device, the regenerating

means, the charging-processing device, the regeneration cost database, and the analyzing means are connected to each other by a network.

13. (Amended) A thin-film manufacturing system comprising: a compound supply section comprising a supply system of a compound for chemical vapor deposition according to claim 1; and a thin-film manufacturing section for manufacturing a thin film using a compound that is supplied from the supply system, comprising: a thin-film manufacturing apparatus; recovering means for recovering a spent compound that is discharged from the thin-film manufacturing apparatus; a storage device for storing an amount of spent compound recovered by the recovering means; and ordering-processing device for performing processing of ordering a new compound or processing of issuing a request for regeneration of the recovered spent compound, wherein the order-processing device of the compound supply section and the ordering-processing device of the thin-film manufacturing section are connected to each other by a network.

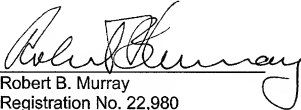
#### REMARKS

Claims 1-13 are pending in this application. By this Amendment, claims 3, 4, 5, 6, 9, 10, 11, 12 & 13 are amended to delete multiple dependency. No new matter is contained in the amendments.

Please charge any fee deficiency or credit any overpayment to Deposit Account

No. 01-2300.

Respectfully submitted,

  
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the customer, and performs shipment processing if the shipment is possible, and

after a spent compound is returned from the customer, the charging-processing device calculates an amount of compound consumed by the customer based on analysis information that is output from the analysis information output means and performs charging-processing for the customer, and the inventory data base extracts an amount of regenerated compound from regeneration information that is output from the regeneration information output means and stores the amount of regenerated compound as an amount of shippable compound.

2. The supply system of a compound for chemical vapor deposition according to claim 1,

wherein the analysis information includes a density and composition as well as the weight of the unreacted compound in the spent compound.

3. The supply system of a compound for chemical vapor deposition according to claim 1 or 2,

wherein the regeneration information includes purity and composition of the regenerated compound.

4. The supply system of a compound for chemical vapor deposition according to any one of claims 1 to 3,

wherein the shipment information includes purity and composition of a compound at the time of shipment.

5. The supply system of a compound for chemical vapor deposition according to <sup>claim 1</sup>any one of claims 1 to 4],

wherein the stock-material information database also stores the analysis information and the regeneration information.

10 6. The supply system of a compound for chemical vapor deposition according to <sup>claim 1</sup>any one of claims 1 to 5],

wherein the order-processing device, the inventory data base, the analyzing means, the regenerating means, the charging-processing device, and the stock-material information database are connected to each other by a network.

7. A supply system of a compound for chemical vapor deposition, comprising:

an order-processing device for receiving a regeneration request from a customer;

regenerating means having regeneration information output means for separating an unreacted compound from a spent compound returned from the customer and refining the separated unreacted compound, and for outputting, as regeneration information, at least a weight of a regenerated compound;

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a regeneration cost database in which a regeneration cost per unit weight corresponding to a kind of the spent compound returned from the customer is recorded; and

a charging-processing device for performing  
5 charging-processing for a regeneration cost for the customer,  
wherein the charging-processing device calculates a regeneration cost based on the regeneration information that is output from the regenerating means and the regeneration cost database, and performs charging-processing for the  
10 customer.

8. The supply system of a compound for chemical vapor deposition according to claim 7,

wherein the regeneration information further includes  
15 purity and composition of the regenerated compound.

9. The supply system of a compound for chemical vapor deposition according to claim 7 <sup>claim 8</sup> [or 8],

wherein the order-processing device, the regenerating  
20 means, the charging-processing device, and the regeneration cost database are connected to each other by a network.

10. The supply system of a compound for chemical vapor deposition according to <sup>claim 9</sup> [any one of claims 7 to 9], further  
25 comprising analyzing means having analysis information output means capable of analyzing the spent compound that is returned from the customer, and outputting, as analysis

information, at least a weight of an unreacted compound in the spent compound.

11. The supply system of a compound for chemical vapor  
5 deposition according to <sup>claim 7</sup> [claims 7 to 9],

wherein the analysis information includes at least one of the weight, a density, and composition of the unreacted compound in the spent compound.

- 10 12. The supply system of a compound for chemical vapor deposition according to <sup>claim 10</sup> [claims 10 to 11],

wherein the order-processing device, the regenerating means, the charging-processing device, the regeneration cost database, and the analyzing means are connected to each other  
15 by a network.

13. A thin-film manufacturing system comprising:

a compound supply section comprising a supply system of a compound for chemical vapor deposition according to <sup>claim 1</sup> [any one  
20 of claims 1 to 12], and a thin-film manufacturing section for manufacturing a thin film using a compound that is supplied from the supply system, comprising:

a thin-film manufacturing apparatus;  
recovering means for recovering a spent compound that  
25 is discharged from the thin-film manufacturing apparatus;  
a storage device for storing an amount of spent compound recovered by the recovering means; and



ordering-processing device for performing processing of  
ordering a new compound or processing of issuing a request  
for regeneration of the recovered spent compound,

5 wherein the order-processing device of the compound  
supply section and the ordering-processing device of the  
thin-film manufacturing section are connected to each other  
by a network.

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